

Remarks

Claims 2-6, 9-13, 17-20, 22-34, and 37 are pending in this application. Claims 2-5, 17-19, and 24-34 are amended. Claims 1, 7, 8, 14-16 and 21 were previously canceled. Claims 9-13, 22, 23, 35, 36 and 38 are currently withdrawn. Applicants reserve the right to reassert the withdrawn claims at a later time in this or another application.

The Applicants filed an Information Disclosure Statement (IDS) on form PTO-SB-08 and a list of Co-Pending Applications on June 27, 2007. The Applicants respectfully request confirmation of the Office's consideration of the submitted information in the next Office communication.

The Applicants wish to thank the Examiner for indicating that Claim 6 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. § 112, 2nd paragraph and rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Objections – Informalities

The Examiner objects to claims 18, 19 and 36 for the informalities stated below. The Applicants have withdrawn claim 36.

In Claims 18 and 19, the Examiner objects to the term “the number of data sequences.” The Applicants have amended claims 18 and 19 to recite the “one or more number of data sequences” in the relevant part.

Claim Rejections – 35 U.S.C. § 112

The Examiner rejects claims 24, 31 and dependent claims 25-30, 32 and 33 under 35 U.S.C. 112, first paragraph as failing to comply with the written description requirement. The Applicants respectfully traverse the Examiner's rejections.

The Examiner states the specification does not teach the use of “executing a user defined instruction using the unaligned subset as an operand.” The Examiner cites as grounds that the original specification is silent with regard to (1) “the use of unaligned data as an operand by a user-defined instruction” and (2) the term “operand.” Applicants respectfully submit that the term “operand” is well known in the art. However, to expedite prosecution, the Applicants have amended the claim to recite “unaligned data” which has support in the specification as originally filed. Thus, the Applicants believe no new matter is added by this amendment, and the objection under 35 U.S.C. 112, first paragraph is overcome.

Claim Rejections – 35 U.S.C. § 103

The Examiner has rejected claims 2, 3, 5, 9, 10, 12, 13, 17-20, 22, 23 and 34-38 under 35 U.S.C. § 103(a) as obvious over *Petersen* (U.S. Patent 5,517,627) in view of *Ramagopal et al.* (U.S. Patent Publication 2003/0196058). Applicants respectfully traverse these rejections.

In rejecting claim 17, the Examiner states that *Petersen* teaches a system having a processor. Claim 17 is presently amended to add an extension adapter and a programmable instruction set extension fabric (ISEF) for enabling instruction extensions to be stored and executed.

Petersen discloses a general purpose processor that is not programmable post silicon (i.e., after fabrication of the processor). By contrast, the present invention includes the ISEF which is programmable post silicon and can store and execute instruction extensions that are defined post silicon.

Furthermore, the Examiner has not identified and the Applicants can not find a teaching or suggestion in *Ramagopal et al.* of an “extension adapter including a load/store buffer” and a “programmable instruction set extension fabric (ISEF) for enabling instruction extensions to be stored and executed,” as recited in amended claim 17. Thus, the Applicants believe *Petersen* in view of *Ramagopal et al.* does not teach or suggest all the elements of amended claim 17.

For at least these reasons, the Applicants believe that Claim 17 and those claims that depend therefrom are allowable. Claims 18, 19, 20 and 37 are allowable for at least the same reasons as Claim 17 from which they depend.

In rejecting Claim 34, the Examiner states that the rejection as well as the motivation follows the rejection of Claim 17. *Petersen* discloses that “[a] data aligner transfers data from an input to an output” (Abstract). *Petersen* does not disclose executing unaligned data sequences. Furthermore, *Ramagopal et al.* does not disclose executing unaligned data sequences.

Claim 34 is presently amended to add “reading an unaligned data sequence from the load/store buffer into a register file of an extension adapter for use by an instruction received from the processor, the unaligned data sequence including at least part of the second aligned word” and “executing the unaligned data sequence.” The Applicants can not find a teaching or suggestion in *Petersen* or *Ramagopal et al.* of “reading an

unaligned data sequence from the load/store buffer into a register file of an extension adapter for use by an instruction received from the processor, the unaligned data sequence including at least part of the second aligned word” as recited in amended claim 34.

For at least the above reason, the Applicants believe that Claim 34 is allowable. Claims 2, 3, 4, 5 and 6 depend from amended Claim 34, and should be allowable for at least the same reasons as Claim 34.

Conclusion

The Applicants respectfully submit that all pending claims are allowable and request that the Examiner issue a Notice of Allowance. The Examiner is invited to contact the Applicants' undersigned representative with any questions concerning the present application.

Respectfully submitted,

Kenneth Mark Williams et al.

Date: 8/27/07

By: Peter L. Holland

Peter L. Holland, Reg. No. 57,113
Carr & Ferrell LLP
2200 Geng Road
Palo Alto, California 94303
Phone (650) 812-3400
FAX (650) 812-3444